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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/579,803	05/26/2000	Takahiro Fukuhara	450101-02516	8527

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FROMMER LAWRENCE & HAUG
745 FIFTH AVENUE- 10TH FL.
NEW YORK, NY 10151

EXAMINER

WU, JINGGE

ART UNIT PAPER NUMBER

2623

DATE MAILED: 02/25/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/579,803

Applicant(s)

FUKUHARA ET AL.

Examiner

Jingge Wu

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under Ex Parte Quayle, 1935 Comm'r Dec. 11 (1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on December 5, 2003 has been entered.

2. Applicants' amendment has required new grounds of rejection. New grounds rejection are therefore presented in the Office Action. Applicant's arguments with respect to claims 1-18 have been fully considered but are moot in view of the new ground(s) of rejection. The Examiner would like to remark Applicant's argument that 1) Applicant argues that amended claim 1 teaches that "only transform coefficients that are necessary for decoding are encoded, not the entire block containing all the transform coefficients." ; and 2) "Li teaches that with padding As a result, the whole block, and thus every transform coefficient of that block is encoded."

Examiner respectfully but strongly disagrees. This application deals with selectively decoding the coefficients specified. Neither amended claim 1 nor the specification contains or teaches the quoted argument. In addition, since claim language only deal with decoding, how to encode the block is not concern here. Thus, Applicant's argument is not persuasive.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by US 6473528 to Li et al. (a reference of record) in view of US 6021224 to Castelli et al. (a reference of record).

As to claim 1, Li discloses a wavelet inverse transform device comprising:

decoding object coefficient extracting means for extracting only coefficients necessary for decoding a specified area (object) of a picture (col. 5 line 66-col. 6 line 18, col. 8 lines 4-30); and

wavelet inverse transform means for inverse transforming coefficients extracted from the decoding object coefficient extracting means (col. 8 lines 20-30),

wherein, the decoding object coefficient extracting means extracts transform coefficients outside of the specified area that are necessary for decoding at least one of said transform coefficients inside said specified area (abstract, col. 5 line 18-col. 6 line 18, col. 8 lines 4-30).

Even though Li does not explicitly mention inverse transform only coefficients of object, this limitation is inherent because Li encodes only object through his wavelet

method and thus, applying decoding inverse transform to only coefficients inside object (abstract, col. 8 lines 4-30).

Even if assuming Li does not teach the limitation, for the purpose of argument, this limitation is well known in the art.

Castelli, in an analogous environment, discloses selecting and retrieving only a portion of the compressed wavelet coefficients and “just decoding the blocks of that contain wavelet coefficients corresponding to the required portion and inverting the wavelet transform coefficient for these coefficients, only” (col. 10, lines 12-40).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the scheme of Castelli in the device of Li in order to efficiently code/decode selected portions of the image (Castelli, col. 1).

As to claim 2, Li further discloses a object area determining means for determining a decoding object area for extracting the coefficients (col. 5 line 18-col. 6 line 65, col. 8 lines 20-30, the “do not care” node is not belong to object area).

As to claims 3 and 5, Li further discloses a plurality of splitting levels for the transform coefficients and include inside and outer rim side of hierarchical levels based on the specified area (col. 6 line 23-col. 7 line 16).

As to claim 4, Li further discloses the transform coefficients on the outer rim side of the specified area are extracted corresponding to the number of the impulse response of a filter used in the IWT (col. 6 line 10-col. 7 line 16, col. 8 lines 20-30).

As to claims 6-7, Li further discloses coefficients in a valid range (object area) based on overlap holding processing is performed from one level of the wavelet splitting to another (col. 6 line 23-col. 7 line 16).

As to claim 8, the claim is corresponding method claim to claims 1 and 3. The discussions are addressed with regard to claims 1 and 3.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 9-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Li and Castelli, further in view of US 5933535 to Lee et al. (a reference of record).

As to claim 9, the combination of Li and Castelli discloses all limitations (see discussion with regard to claims 1 and 3) except entropy decoding.

Lee, in an analogous environment, discloses the entropy decoding used with IWT (col. 28 line 61-col. 29, line 3).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the entropy scheme of Lee in the device of Li in order to efficiently code/decode the image.

As to claim 10, Li and Lee do not explicitly mention dequantizing means.

Examiner takes Official Notice that this feature is notoriously well known in the art.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the dequantization scheme in the device of Li in order to efficiently code/decode the image.

As to claims 11-16, the discussions are addressed with regard to claims 3-7.

As to claims 17-18, the claims are corresponding method claims to claims 9-10.

The discussions are addressed with regard to claims 9-10.

Contact Information

7. Any inquiry concerning this communication or earlier communications should be directed to Jingge Wu whose telephone number is (703) 308-9588. He can normally be reached Monday through Thursday from 8:00 am to 5:30 pm. The examiner can be also reached on second alternate Fridays.

Any inquiry of a general nature or relating to the status of this application should be directed to TC customer service whose telephone number is (703) 306-0377.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Amelia Au, can be reached at (703) 308-6604.

The Working Group Fax number is (703) 872-9314.

Jingge Wu

Primary Patent Examiner

